SYSTEMS AND METHODS FOR COMBINING SUBWORD DETECTION AND WORD DETECTION FOR PROCESSING A SPOKEN INPUT

ABSTRACT OF THE DISCLOSURE

5   A computer-based detection (e.g. speech recognition) system combines a word decoder and subword decoder to detect words (or phrases) in a spoken input provided by a user into a speaker connected to the detection system. The word decoder detects words by comparing an input pattern (e.g., of hypothetical word matches) to reference patterns (e.g., words). The subword decoder compares an input pattern (e.g. hypothetical word matches based on subword or phoneme recognition) to reference patterns (e.g., words) based on a word pronunciation distance measure that indicates how close each input pattern is to matching each reference pattern. The word decoder and subword decoder each provide an N-best list of hypothetical matches to the spoken input. A list fusion module of the detection system selectively combines the two N-best lists to produce a final or combined N-best list.